TRACERIES

AND

THEIR POSITION IN ARCHITECTURAL DESIGN

BY

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By WILLIAM SEARLE HICKS, NEWCASTLE.

Read before the Northern Architectural Association, 29th January 1896

It has always seemed to me that tracery is one of the most interesting things in architecture—at all events, it holds a high place in my regard. It is an attractive study. The term tracery becomes almost synonymous with the term architectural ornament, so that a Paper on Traceries ought to be one of surpassing interest, and if it fails, the fault is less likely to be with the subject than with the handling of it.

Nature's designs, so varied, so consistent in principle, so infinitely suggestive in motive, deserve a great deal more than a passing examination to begin with. The traceries that seem to cover the sky on some mornings and evenings, filmy and lacelike, in endless and intricate perspectives (illuminated with golden and rosy glow from the rising or setting sun, stretching across the blue vault of the sky)—these are the first things that come to one's mind, but these are dreamy and ethereal, and they pass away rapidly. They are not constructive traceries like those of earth. They hold, in relation to the traceries of architecture, much the same position as the whispering of the winds to the rhythmical music of stringed instruments. They are the first suggestion to the poet's mind of the screens between earth and heaven; they establish the principle of the beauty of tracery; they move one's admiration and emotions, and they pass away and are forgotten.

In the same way, who can help wondering at or admiring the traceries of the sea foam, which one looks down upon, the white lace fringe of Nature's green mantle? This, too, is transitory, like that of the clouds. The beauty is undeniable, but it is only beauty, that is to say, beauty without use: æsthetic beauty, affecting the mind and the feelings only, and, as I said before, establishing a principle of design, but going no further. Whether we look up to the heights or down to the depths, we find Nature decorating herself with traceries on her best days; when she wants to be a little better-looking than on her dull or ordinary days.

Art follows Nature in all her great principles, and this is a somewhat different thing from copying Nature in matters of detail—different because Nature's methods differ somewhat from artists' methods. I think we are quite right in going to Nature for the principles of design, though it is quite debatable how far we are right in adhering to Nature (in detailed imitations) for our decorative patterns.

Be all this as it may, it is quite clear that Nature is the fountain of art, the educator of imagination, the suggester of forms; and that the standard of ultimate criticism and ideal beauty cannot anywhere be found except in Nature at her best, Nature in health, Nature in full vigour, Nature in early growth, Nature in final development.

This, then, is why we appeal to Nature. The fact is that our minds have no power to conceive original beauty apart from Nature; and when our conventional forms are far departed from the natural forms of beauty which suggest them to us, then we begin to perceive that Art is a department of Nature; so that artistic thoughts grow in a natural sequence, one upon another, not unlike natural evolution—the principle acknowledged, some sort of development follows as a matter of course. Art is one department of Nature.

Before passing on to architectural traceries, I will say this as to natural traceries (whether piercings, relievings, or inscribings):—Nature uses three sorts of traceries, (1) Geometrical forms, as in flower and leaf; (2) Growing or consecutive forms, as in stems, branches, and tendrils, sea-weeds, &c.; (3) Independent forms, without manifest structure, such as random variegations, or the cloud and foam shapes above noticed, or the shapes made by the crystallisation of ice, on the window panes and pavements.

Nature uses tracery for three purposes:—(1) To decorate her surfaces; (2) To edge or border her masses; (3) To

serve as screens; to partly conceal, partly reveal her backgrounds, her treasures beyond the barriers.

I think I am right in saying that these three purposes in Nature have their exact counterpart in Art:—(1) The decorating or relieving of plain surfaces; (2) The edging or bordering of masses; (3) The screening of what is behind. I think I can almost as safely say that Nature's forms have also their counterpart in Art, viz.:—(1) The geometrical; (2) The consecutive or branching; (3) The independent or unstructural or random traceries. But, inasmuch as architecture is constructive art, I think we may keep down our admiration rather, from the less constructive to the more constructive forms. I suppose this is why some of the accepted critics spoke of geometric forms as containing the only true principles of tracery, and the branching forms as indicating decay. But it seems to me that decay only comes with the predominance of unconstructive forms. In some places these are very beautiful, but I do not care enthusiastically for mere intricacy without rhyme or reason. I thoroughly approve of all constructive forms, whether geometric or branching; random traceries must take a lower place.

It must not be forgotten that there is a third type of constructive tracery in Art, which is hardly to be found at all in Nature, except suggestively. I mean when the love of intricacy finds its vent in interlacements and plaits. The suggestion here is rather in Art than in Nature; in weaving, plaiting, basket-making. There is a witchery and charm also in the "twisting of the rope," the web of the spider, the rigging of ships—none of which is without its suggestive power to the eye which sees and perceives. Also a fourth type of constructive tracery, where material has suggested principles; where the rigidity of stone has suggested rigidity of ornament (not in stone only), where ductility of metal has suggested the bending and twisting forms (not in metal-work only), and so on in other ways. I should be disposed to admit these third and fourth types as perfectly reasonable and good and fundamental, though not perhaps so noble in origin as the forms which are derived from Nature herself direct—they are part of the natural evolution of art.

If you have followed me thus far, I think you will be prepared to admit what is not so fully recognised as it might be, viz. that tracery as an architectural principle is quite as applicable to the ornament of Classic architecture as of Gothic and Oriental styles. Certainly, in Classic art

tracery is chiefly confined to decorating and relieving surfaces and mouldings, whereas the Gothic art uses it in the fuller and freer manner, leaving the mouldings uncarved. But the principles are the same in all, more or less, for the Classic ornaments and the frets, which decorate a frieze, or a panel, or a moulding, are tracery just as much as if they were pierced and suspended in mid-air, as in the Gothic styles.

It is interesting here to look a little more closely into the reasons for the distinctive character of Classic *versus* Gothic forms of tracery. It has been said (though I cannot quote the author) that Classic art is rather in sympathy with the sculptor's thoughts: it is statuesque. Gothic is rather in sympathy with the painter's thoughts: it is picturesque. There is no doubt of the truth of this saying, and it sets one thinking on fresh lines of thought.

The origin of Classic forms may be found in the subtropical lands of Egypt and Greece, where the powerful life was the animal life, that gives the sculptor his models. But the Gothic art arose among men who lived forest lives, where all the varieties of wild vegetation, of wild birds, and forest creatures are to be found, such as the painter revels in—lands of fantastic myth and fable—and thus we see the animal kingdom at its greatest in Classic thought, and the vegetable kingdom at its greatest in Gothic thought: the sculpturesque element in the one, the picturesque element in the other. The Classic is the more restrained within its own limits. Its frets and laces suggest the ornaments on the drapery of the human figure; the Gothic is the more free and fantastic, the more wild, grotesque, and unlimited; its traceries suggest the dreams of a painter and a child of the forest. This is almost a truism, but I want it here, because as a matter of first suggestion it is clear enough that the Gothic grew out of the Classic. It was not altogether independent, but it was a transition in the following order—(1) Egyptian, (2) Greek, (3) Roman, (4) Byzantine, (5) Romanesque, (6) Gothic. The Renaissance and modern are left out of count for the present. The influence of Oriental and the Saracenic arts was incidental, and they would lead me away from the main line if I would let them. I shall also mention them presently, but meanwhile it is my purpose to speak of the Classic as the early manner, and the Gothic as the later manner, in my endeavour to account for the contrast between the restrained use of the Classic traceries and the unrestrained use of the Gothic.

It is curious to work out into this matter Mr. Ruskin's saying about the sign of decay being the "forsaking of "the mass for the line"—architectural style running to seed. That is a most powerful half-truth, in art criticism —it is not a whole truth. There is a sound philosophic thought below it, which makes it very attractive; but the gradual refinement from mass to line goes very much further than merely to mark decay; it also marks all growth. You may see the principle in comparing the Classic orders among themselves; you may perceive it almost at a glance in the superficial comparison of the Classic with the Gothic styles: the Classic is massive—where the Gothic is flimsy. The great cylindrical column had already given way to slender shafts in many cases; the broad soffits to recessed orders and deeply undercut line mouldings. The wall divisions between windows had already been refined down to mullions, long before Art reached the point at which Mr. Ruskin prophesied its downfall, because forsooth the mass had given way to the line in the traceries. Mass has always been giving way to the line ever since architecture began. Certainly when the Normans started afresh they appreciated mass, and made heavier masses than they found; but the Norman idea of mass was one in which line had already begun to predominate. That traceries should develop the study of *line* is but logical and consistent, not otherwise remarkable, and in no way a mark of decay, except that all development in life, all gradual refinement, is a progress towards death; and that all increased intricacy of thought is a progress towards exhaustion and weariness.

It seems to me inevitable that so obvious a suggestion as that which Nature affords us in her tree branches, should be taken up and freely adopted, as it was by our artists. To have lost sight of it would seem to me more like a sign of decay of artistic power than the fact that they seized it. But they allowed it to run away with them. Their enthusiasm for its fantastic richness left them (to modify Disraeli's saying) "inebriated with the "exuberance" of an extravagant display; and so it came to an end, because they could neither keep up the excitement nor the cost of such an expensive game.

But we may ask the question: were its forms or its principles exhausted? To this I answer No, quite unhesitatingly. Enthusiasm was exhausted, but principles were not. The geometrical forms were never exhausted in the days of the geometrical styles. The geometric

character of many of the later traceries shows this. For local example the Carlisle, Brancepeth, Hexham, and Jarrow traceries, and those which suggested Billings's well-known book on the "infinity of geo-"metric design"—these, and the Moorish, Saracenic, and other Oriental screen traceries, based on intersections of curved with straight and radiating lines, varied with geometric foliations, in which the forms are set out on squares, oblongs, triangles, diamonds, pentagons, hexagons, and other polygons, all of which are purely geometrical—all these go to show what I say, that in the geometrical period (as it is called) the geometrical mines were not worked out or exhausted at all; they were only abandoned because the suggestion of growing and branching traceries was too enticing and too obvious to be resisted at the time. But now I think we come to something which gives a point to Mr. Ruskin's doctrine about that period being the period of climax in style, the decay dating thence.

Up to that period all influences had been pouring into the one stream of thought. Whether the Scandinavian and Celtic love of intricacies and grotesque serpents and dragons, and other old Runic ornaments, or whether the Frankish love of mystery, romance, and grandeur, or whether the Byzantine and Oriental love of wealthy enrichment be taken as accounting for the style of earlier ornament, it matters not, I think. It is evident that there has been a concentration of it—all the Norman and Romanesque enrichment shows this—borrowing some of its characteristics from the North, and some from the South, and some from the East. They developed consistently enough till they reached the geometrical period; from that point they began to diverge in style. (1) The French began their Flamboyant; (2) the English began another sort of curvilinear, and carried it on to Perpendicular; (3) the Germans went their wilful ways, in defiance of all principle except freedom and fancy and unrestrained imagination; (4) the Spaniards went in for intricacy and power of shadow; (5) the Italians began at once with the Early Renaissance and all its refinements, soon forsaking the Gothic principles, which they had never held with the same tenacity as the more Northern races had. I will say more of the Renaissance presently, but will now follow the French, English, and Germans a little further.

And first the French, because the French were really the leaders. The great geometrical French window traceries of the thirteenth century are too well known by you

to need illustration—they are simple to the verge of monotony. Then we pass on—I wish I could do justice to the next period of French work, in which the geometric is just giving way to the flowing. The aisle windows of the nave at Amiens are the most impressively beautiful I have ever seen. The characteristic of them seems to me to be a most perfect study of the subordination of lines and of the outline of foliations. It is difficult to describe the delicacy of the shapes, but I remember wandering up and down looking from one variety to another, feasting my eyes, and thinking them the noblest windows I had ever seen. From this later and refined geometrical, the style passes rapidly on to the fully developed Flamboyant, of which, perhaps, Abbeville is one of the most perfectly artistic examples, in its lovely west front. Nearly all the setting-out is still purely geometrical, but the tangent curves are so well marked now that all the lines are easy and flowing and gracious, and the variety is endless, in rose window, door gables, galleries, and traceried parapets. And note here what I said before about traceries to decorate the surface, and traceries to edge or border the masses, and traceries to form screens, viz. the windows themselves. The harmonious mixture of flowing lines with geometrical and perpendicular makes this front a specially interesting and pleasing one, for the mixture suggests nothing of incongruity. Later, the French traceries passed on into a florid luxuriousness and feebleness of line, till at last they lost much of constructive beauty, and were so much overdone as to be uninteresting—as extravagance generally becomes. But if the geometrical period did not exhaust the capabilities of geometric arrangements, still less did the later French exhaust the forms which may be made in curving and branching lines. They seem to have ceased for very weariness, and in the later work of Francis I. and Henry IV. to have taken to semi-classic forms, relieved by fretting out the classic ornaments, and converting them into traceries, so as to assimilate them with the surviving Flamboyant.

In England this was all done differently. The sober and less imaginative English worked out their thoughts on steadier principles of self-development. The geometrical gave way to the flowing, but hardly to the Flamboyant, except in rare examples. We in England have a wealth of beautiful specimens of branching traceries all over the country—notably at York (west window) and Carlisle (east window)—until by degrees the rigid and stony perpendicular

took firm hold on the English mind, and the stiff principles of regularity never gave way to extravagant excess of curvature. The flowing and obvious geometrical character practically died out, except in a few of the very best examples, such as Wrexham. This, indeed, retains all the best principles of tracery formation, which are seen again in the rich fan traceries which adorn the fretted vaults of the last years of the Gothic period.

In Germany, the logical minds which argued, that because you might bend the lines of a mullion, therefore you might bend and interlace your pinnacles, which are of the same material, led on the reckless Germans into all sorts of most interesting vagaries, leaving us infinite suggestions of beautiful and delicate intricacy, mixing and combining architectural forms with stems, foliations, foliages, straps, and all other bending and writhing forms, in endless profusion and complication. At this day we have numberless examples, not exactly to copy but to study from, bringing them back into steadier and more reasonable compass, if we can. The most prominent characteristics are their intricacy and lace-like delicacy, and, next, the due subordination of broad constructive lines, with the slender subsidiary ones; and finally we see the frequent repetition of main designs with endless varieties of detail. I think the first principle is well shown in a German diptych example—it is a fifteenth-century tracery in the Berlin Museum. It is intricate enough: stem and leaf work are springing from a central whorl, writhing and interlacing in perfectly harmonious curves, with no thought of sameness or symmetry, except in its boundaries.

The second principle, viz. subordination, is clearly shown in another example in the same museum. This might have been English instead of German; it is so nice, and so refined and steady; the three geometrical divisions, with slight cusps and delicate perpendicular spandrils unequally filled in, and so making a semi-conscious variety, are all very delicately conceived. In a third example, which one cannot help admiring, we see the principle of subordination beautifully, but this example is more characteristic of German work. I think the effect of the double ogee shape is excellent in quantity and weight and power of line, when compared with the filling-in of the delicate stems and foliage; but it is seriously marred by the abrupt cutting off of architectural forms, which to an English eye is quite intolerable and unreasonable. For all that, the example is full of suggestion, and I think it helps to bear out what

I said about the inexhaustible suggestiveness of branch forms. If geometric forms were not worked out in geometric days, still less were the branch forms in the days of the later traceries; but Nature has another suggestion for us under this head of subordination, which I do not think has yet been made the most of in art; there is scarcely a touch of it in ancient traceries, but I have seen it in a large modern window—the east window of Sedding's church in Sloane Street, South Kensington.

The idea is this. Tree trunks diminish towards the boughs and branches—boughs and branches towards the branchlets, and the branchlets towards the twigs—and if one is looking at the sky through the stems of a winter tree, or row of trees, one sees the principle of subordination taking the form I have indicated, diminishing from the central or parent stems and outwards, to the offspring twigs. There is a suggestive thought in this, capable of more working out than it has ever yet received, in design of traceries.

Before leaving the Gothic styles, it may be well to point out the difference between English and foreign traceries a little more fully. The early French geometrical traceries are all very much alike, and the later French Flamboyant have a great deal of sameness in them.

It is chiefly in the great rose windows of the great cathedrals in France (which could not be beaten) that we find the systematic setting-out, and the perfect balance of parts, that go to make tracery work most pleasing. These qualities you find in nearly all English work of the fourteenth century, and you also find more variety in the English geometrical than in the foreign.

Sharpe's Decorated Windows will give you an excellent idea of what I mean—the geometrical windows of Tintern, Lincoln, Guisborough, and St. Mary's, York. The decorated windows of Carlisle and York Cathedrals (mentioned above) contain both of the qualities of systematic setting-out and perfect balance of parts, and are geometrically based on equilateral triangles. The French Flamboyant was too pliant, just as perhaps the English Perpendicular was too rigid.

The French artists grew impatient of any opposition of line; everything must be pliant; and one's eye wearies of the want of definite and forcible contrast in the window traceries. I may instance a series of windows in the splendid church of Saint-Jacques at Lisieux: some show this over-pliancy, while some are exactly like English traceries.

This remark as to opposition of line hardly applies to the parapet traceries, which seem to me perfectly exquisite, and far beyond anything we have in this country.

I have almost said enough about Gothic traceries, and I must now call attention in passing to the Eastern and Saracenic traceries, some of which evidently influenced the Gothic through the Spanish. In the Oriental work, so far as I know, we have nothing worth notice in the way of great window traceries, but only the smaller works which decorate the surface of the walls, as in the palace at Mashita; or of the doors, as at El Kanqueh, near Cairo; or which construct close screens, like those commonly called Cairene work. The well-known interlacements of Arab lattice traceries are strictly geometrical, and I may refer to a small book, by Lewis F. Day, which is very interesting in giving the principles for the setting-out of tracery and foliage patterns. It unravels their intricacies, and makes the most complex patterns quite simple and easy to understand.

Now let me notice the bronze doors at El Khanqueh. In the border we see a fret which for exquisite balance and regular series and proportion and general taste, would be very hard to surpass; it is pure tracery and fretwork—scarcely suggesting foliage at all. The central design has a geometrical outline and setting-out. A circle with twelve radiations. The curves of the ornament are tangent to the radiations. The radiating lines are not crossed. They are the base, from which the curves spring symmetrically, or the limit to which they attain. Here, again, there are slight suggestions of flowers and fruits, and the pattern is varied by the introduction of birds, beasts, and fishes. The same remark applies to the corner design as to the central. The mitre line gives the base of the pattern. This is fifteenth or sixteenth century work.

It is a long jump backwards to the sixth-century wall decorations of the palace at Mashita. All the better in some ways, if one is to show the universality of principles. Here you have the same slender branching lines, the same geometrical limits, the same introduction of birds and beasts, but rather more shelter and food for them in the way of leaves and fruits. I notice in this an interesting fact, viz. the beautiful enrichment of the mouldings. I mentioned this casually before. I am not in a position to make the most of this, but it seems at all events worth remarking that such decoration and fretting of the mouldings seem to have been usual in the Eastern and Classic

arts. Mouldings are carved into eggs and darts and leaves, and chopped into dentils ; but that principle never survived into the Gothic arts beyond the Norman period. In the Norman days they fretted and carved and traceried their shafts and mouldings, richly and plentifully enough, but with the Normans that class of work died out. After that you find hollow moulds, with foliage or flowers or other fretted ornaments growing in the hollows, or spaced here and there ; but that mode of decorating the mouldings is forsaken in Gothic work, and only picked up again in the Renaissance. In Gothic work the severe pure lines of the mouldings are used as a contrast to the enrichment. But this is by the way. It has no strict bearing on traceries.

The concluding part of my Paper shall be devoted to a notice of the influence which Gothic art has had on the revived Classic in the matter of traceries, and finally to the probable influence of all this *embarras de richesse* on our modern ways of designing.

It is quite impossible that the Gothic arts should ever be so abandoned and forgotten as to have left no impress at all on the arts that followed. We know that the transition from the late Gothic back to the Classic was rather sudden, but it was not so sudden as to leave the revived Classic exactly where the Romans left it; far otherwise. Truths in art, once proved, are so great that they must always prevail to some extent.

Thus in Renaissance work we find so much intermixture of Classic and Gothic forms at first as to endanger the gravity of classical character. In our own day we see this, for the revived study of Gothic work, side by side with the revived study of Classic, has this effect on both, that it has lightened our Classic to the verge of frivolity, and unsettled it very much indeed; while the methods of revived Classic architecture have tended to sober and tone down all our Gothic work to the point of dulness and tameness. The master minds only have been able to struggle against this levelling process. I only mention it because in the earlier Renaissance it was quite evident we must have traceries. Life without pierced parapets and balconies would be unbearable. Pierced parapets must survive in some form or another. Archways thrown open without screens would be naked and quite disgraceful. To close them up with doors or curtains, so that no one could peep through, would be most unkind. Surface panels must be decorated. Plain panels would be much too severe to please the eyes that had learned to

look at branching lines of foliage, at playful grotesques of animal life. Arabesque traceries must overrun the pilasters and panels; nay, even the scroll and foliage ornaments must be pierced and serve as screen traceries, like the example from the marble screen of Rodez, which is tracery to all intents and purposes, just as if it had been Gothic in style, made up of much the same elements—even geometry and symmetry have their place in the designs; and so you see in revived Classic we have the principle surviving with which I began of, 1st, edging the masses; 2nd, decorating the surfaces; 3rd, screening the openings.

The popularity of frets and traceries never altogether vanished. In the open screens of the seventeenth century, in the furniture of the eighteenth and nineteenth, in the ironwork and all the decorative crafts that came down to the Gothic revival, one finds them still, more or less, and in our own day more than ever. The Classic masters could hardly restrain the principle within bounds, and the Gothic masters have deliberately set it all free again.

Finally, the influence of all that we are able to collect of the traceries of all ages and countries is certain to be great on our own future work. We are equipped now with material enough, with principles sufficiently well established, to make a mark on the styles of the future.

Let me recapitulate the principles of design which have produced the finest results everywhere, only remarking that good taste and first-rate ingenuity are not to be commanded by a mere study of principles, or by practice among the examples, for Art is a department of Nature. An artist must be born of that nature and nourished among the principles of his art, and then he will succeed if he stick to his work. Without the natural gifts, one can no more produce the designs of a great artist than one can force melons in the soil of a cabbage garden.

But the principles are these:—(1) Natural suggestions. (2) Geometrical and symmetrical dispositions. (3) Varied repetitions. (4) Simple subordinations. (5) Balance of parts. (6) Contrast of lines. (7) Refinement of outlines. (8) Delicacy or lightness of structure. (9) Intricacy of convolutions or of interlacings.

Parker says that "the best modern architects generally "fail in the attempt to produce good Gothic tracery, while "in all other respects they have succeeded in thoroughly "good imitation of the old work, and even rival it in design." Doubtless many things have happened since Parker wrote these words. I well remember when I was a pupil, being

told to draw traceries very carefully, and to study the shapes, depths, and sections of cuspings very closely, because if one desired to get into a good office in London the most searching examination would be made as to one's power of drawing good traceries. If my Paper has been wearisome, at all events I think these last words are sufficient to justify a careful study of even such an æsthetic and non-utilitarian subject as traceries.

*** The foregoing lecture was illustrated by means of numerous rubbings, drawings, photographs, and freehand charcoal sketches made during the progress of the Paper.

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